



PATENT

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Keith M. Baxter, Attorney of Record

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appl. No.: 10/076,758
Applicant(s): John J. Hahn, *et al.*
Filed: February 14, 2002
Title: Multi-Shot Injection Molding Arrangement
A.U.: 1732
Examiner: Jill Lynne Heitbrink
Docket No.: 650770.90082

DECLARATION UNDER 37 C.F.R § 1.132

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

I, John J. Hahn, hereby declare that:

1) I am the Vice President of Engineering at MGS Mfg. Group, Inc. and I am one of the inventors, along with Steven P. Kolander, Mark G. Sellers, and Michael E. Ebenhoe, of the invention described in the above-captioned patent application: Multi-Shot Injection Molding Arrangement.

2) In my career in the injection molding industry, I have been part of the development of injection molding equipment and in particular, multi-shot injection molding equipment having multiple injectors, for the past six years.

3) MGS Mfg. Group, Inc. is an FDA Registered and Underwriters Regulated manufacturer handling high volume, high technology molding 24 hours a day, seven days a

week. Our presses range from 28-720 ton. We have over 50 multi-shot systems, and over 300,000 square feet of production space with multiple manufacturing facilities.

4) Injection molding machines having multiple injectors and suitable for multi-shot injection molding are well known in the art; however, to my knowledge, no one has ever described, offered or sold a kit for adding a second injector to a third-party standard, single injector injection molding machine prior to the above invention.

5) A major difficulty in designing an add-on injector for this purpose is the wide variety of mechanical structures used in such machines such as might be expected to require a substantial amount of custom engineering for the mechanical interface. The attachment of the second injector must be secure and strong to resist the high forces applied to the injector, further complicating attachment of the second injector to different machines.

6) Prior to the present invention, we purchased multi-injector machines manufactured for that specific purpose from a number of vendors, despite the high costs of such machines and the fact that we had idle single injector machines, based on a belief that adding an injector to a pre-existing single injector machine was impractical.

7) To our knowledge, such a proposed solution was never discussed in the industry as an alternative. We did consult on numerous occasions with the machine manufacturers and they told us that they felt it was highly impractical and that they would not attempt to build such a unit for us.

8) For these reasons, I believe that the offering of an add-on injector system was widely considered impossible or commercially impractical, prior to the present invention.

9) The key to our invention was recognition that most standard injection molding machines offer a relatively standardized surface in the form of a movable or stationary platen having a broad flat surface for mold attachment.

10) My co-inventors and I developed and tested the addition of an injector to a standard injection-molding machine and determined that suitable stability could be provided by a platen attachment.

11) Prior to our invention, I am aware of no suggestion for or use of the platens as a mounting point for add-on injectors.

12) We began actually moving forward with our idea, by building an add-on injector system during 1999.

13) Our company builds an average of \$36,000,000.00 worth of molds a year. When our customers would come in to see their mold running and producing parts, they would observe how we ran the molds using this special equipment to add efficiency. Invariably, they would ask where we got this equipment and how we knew how to do it that way. When we told them that we engineered and built it ourselves, they wanted to know if they could buy it. Thereafter, they would tell other people and eventually word of mouth generated a demand for this equipment from our customers and others. Our advertising of this product was limited to corporate brochures and if a need for the application was evident with an existing or potential customer, the solution was proposed to them. That is where much of the demand was created and confirmation of the need in the industry was verified.

14) Actual sales began in 1999, when we sold 13 units. Subsequently, sales increased to 95 total units over the next five years.

15) We have currently sold 95 units with revenue exceeding \$10,500,000.00 and an average annual growth rate in sales of over 200%. The growth rate continues to accelerate.

16) This demonstrated growth rate is substantially higher than the growth rate of machine sales in the multi-injection molding machine industry. Therefore, we believe it clearly demonstrates that once a solution was identified, that the demand steadily grew. It is clear from our small advertising budget and lack of promotion that this commercial success was not the result of heavy promotion, advertising, or a change in advertising by our company.

17) During the second half of 2002, three years after beginning sales of the add-on injector, injection molding machine manufacturer Krauss Maffei began offering a competing product. In addition to Krauss Maffei, Demag and Cincinnati Milacron (Baby Plast) launched competing products during the NPE show in June, 2003.

18) Each of these competing devices provides a single injector that may be platen mounted to fit on a wide variety of different third party, single injector injection molding machines.

19) This competing product used the platen for mounting the injector, as claimed in the present application.

20) To my knowledge, these products had never previously been sold or offered by our competitors.

21) Nevertheless, for many years all of these competitors previously manufactured multi-shot injection-molding machines and thus were knowledgeable about the general technology.

22) Prior to our invention, I had requested add-on units from machine manufacturers Engel and Krauss Maffei and was told that this was impractical – it couldn't be done. The uniqueness of our system is that it is transportable from press to press and it is not "married" to a base machine. Other machine manufacturers have retrofitted existing equipment with a second-shot barrel, but what is unique about ours is that it will go from press to press and is not integrated into any particular machine manufacturer or press size.

23) Based on our commercial success and the competition engendered by our success, I believe the claimed method of adding a second injector to a standard single injector injection-molding machine was not obvious to one of ordinary skill in the art, at the time it was made. Nobody was doing exactly what we are doing. Once we did it, NOW it became obvious. The first people to do it should get the credit for it, not the people who copy from them.

24) The features sought by the customers of our product are those identically claimed in the above-referenced patent to wit: a second injector for platen mounting.

25) Other than the claimed invention of retrofitting through platen mounting, our product is identical to a multi-shot injection-molding machine, and therefore the commercial success beyond the general market growth in such machines must be solely attributable to the claimed invention.

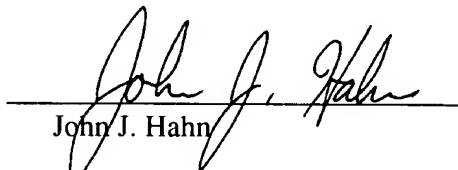
26) Multi-shot molding machines have been produced for many years, and thus commercial success beyond the growth rate of standard multi-shot machines cannot be attributable simply to increases in demand for multi-shot molding.

27) At this time, I believe our market share for add-on injectors is approximately 90% or higher.

28) The rapid acceptance and volume of sales of this device reflect the existence of an unmet need in the industry.

29) I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Dated: _____



John J. Hahn